

Claims

1. A light source, including a lamp which emits the light, a concave mirror which reflects the light emitted from said lamp and has an opening part which issues the light, and a light permeable member which covers the opening part of said concave mirror, characterized in that said concave mirror includes a permeable port, a mesh arranged in a position where it covers the permeable port, and a protective wall for protecting said mesh, which is arranged in a position where direct collision between the mesh and broken pieces of the lamp made by a burst of the lamp is prevented.

2. The light source according to Claim 1, wherein said protective wall is arranged, in said permeable port, in a portion where said mesh and an extension line of an imaginary line connecting a center part of said lamp and an opening edge near the lamp of said permeable port intersect, or on the opening edge side near said lamp of said portion.

3. The light source according to Claim 1 or 2, wherein said protective wall is arranged in a position where the direct collision between said mesh and said lamp broken pieces that have bounced by the collision with said light permeable member is prevented.

4. The light source according to any of Claims 1 to 3, wherein

said protective wall is arranged, in said permeable port, in a portion where the mesh and a third imaginary line that is line-symmetrical about a second imaginary line connecting the center part of said lamp and a position, on a back surface of said light permeable member, which is distant from the mesh surface by a half length of a total length of the protective wall intersect; or on said light permeable member side of said portion.

5. The light source according to any of Claims 1 to 4, wherein the height of the protective wall is set to a dimension by which an emergent ray from the lamp is not intercepted.

6. The light source according to any of Claims 1 to 5, wherein said protective wall inclines in relation to the back surface of said light permeable member.

7. The light source according to any of Claims 1 to 6, wherein said protective wall is integrally provided for said concave mirror.

8. The light source according to any of Claims 1 to 7, wherein said protective wall is attached to said concave mirror via an attachment spacer.

9. The light source according to any of Claims 1 to 8, wherein

said concave mirror has further an auxiliary protective wall for protecting said mesh.

10. The light source according to Claim 9, wherein said auxiliary protective wall is arranged in a position where the direct collision between said mesh and lamp broken pieces scattering due to the burst of said lamp is prevented.

11. The light source according to Claim 9 or 10, wherein said auxiliary protective wall is arranged, in said permeable port, in a portion where said mesh and an extension line of a fourth imaginary line connecting the center part of said lamp and a leading end of said protective wall intersect, or on said protective wall side of said portion.

12. The light source according to any of Claims 9 to 11, wherein as said auxiliary protective wall, the plural auxiliary protective walls are arranged on the light permeable member side of said protective wall in parallel; and

said auxiliary protective wall on said light permeable member side is arranged in a portion where said mesh and an extension line of a fifth imaginary line connecting the center part of said lamp and a leading end of said auxiliary protective wall on said protective wall side intersect, or on the protective wall side of said portion.

13. The light source according to any of Claims 9 to 12, wherein said auxiliary protective wall is arranged in a position where the direct collision between said mesh and said lamp broken pieces that have bounced by the collision with said light permeable member is prevented.

14. The light source according to Claim 13, wherein said auxiliary protective wall is arranged, in said permeable port, in a portion where said mesh and a seventh imaginary line that is line-symmetrical about a sixth imaginary line connecting the center part of said lamp and a position, on the back surface of said light permeable member, which is distant from the mesh surface by a half length of a total length of the auxiliary protective wall that is closest to the light permeable member intersect; or on said light permeable member side of said portion.

15. The light source according to any of Claims 9 to 14, wherein the height of the auxiliary protective wall is set to a dimension by which an emergent ray from the lamp is not intercepted.

16. The light source according to any of Claims 9 to 15, wherein, said auxiliary protective wall is provided integrally for said concave mirror.

17. The light source according to any of Claims 8 to 15, wherein said auxiliary protective wall is provided for said concave mirror via an attachment spacer.

18. A projector comprising the light source according to any of Claims 1 to 17, an electro-optic modulator which modulates the emergent ray from said light source according to image signals, and a projecting optical system which projects and displays the modulated light from said electro-optic modulator.